California Monthly Climate Summary
November 2008

Weather Highlights

November 2008 was a warm and dry month with many records set. According to the Western Region Climate Center's California Climate Tracker, the monthly average temperature was 51.7°F which is 3.5°F above the long-term average temperature for the state. With a statewide average of 0.68 inches, precipitation for November was 24% of the long term average. This continues Water Year 2008's streak of above normal temperatures and below normal precipitation.

November started with a storm that dropped measurable precipitation across the northern half of the state with moderate snow falling in the Sierra Nevada. The storminess continued into the second week with precipitation reaching across the length of the state. Rain retreated back to the north coast in the third week with high pressure leading to record high temperatures in many places. Santa Ana winds kicked up as well with gusts exceeding 50 mph in places. Fires broke out in many places in southern California burning many structures and leading to evacuations in places. The week of Thanksgiving brought rain to southern California raising fears of debris flows in freshly burned areas. The rain extended up into the Sacramento Valley on Wednesday. The remainder of the month was dry with foggy conditions occurring in the Central Valley.

Preliminary records, reported on the National Weather Service Record Event Report, show that statewide there were 196 temperature records tied or broken, and 35 precipitation records tied or broken for the month. Of the 196 temperature records, 153 were for new high maximums and 40 were for new high minimums. Twenty-one days yielded some type of new record. On November 1st, Fresno Air Terminal recorded a minimum temperature of 61°F which tied the high minimum temperature record set back in 1897. Other long term records fell in the middle of the month. On November 14th, San Francisco Airport and downtown both broke 1906 records for high temperatures with readings of 78°F and 80°F respectively topping the old records by 5°F and 3°F respectively. On November 16th, San Rafael tied an 1895 record high temperature with 75°F reading while Napa topped its 1895 maximum temperature reading of 81°F by 1°F. San Jose beat its 1895 maximum of 81°F by 2°F and King City topped its 1914 record of 90°F with a reading of 91°F. Alturas beat its 1949 record of 69°F with a reading of 71°F. Downtown Los Angeles tied its 1949 maximum temperature record with a reading of 88°F. Woodland Hills topped its 1949 record of 89°F on the 16th with a reading of 91°F. San Diego tied its 1912 high temperature record with a reading of 86°F. Many other records fell on the 16th as well. Rainfall records fell in droves on the 26th of November. San Diego set a new daily rainfall total record with 1.05 inches of rain. The old record of 0.95 inches was set back in 1909. Fullerton (1.06 breaking old record of 0.66), UCLA (0.99 inches breaking old record of 0.72 inches), Burbank (1.23 inches breaking old record of 0.71 inches), and Long Beach (1.02 inches breaking old record of 0.74 inches) all broke precipitation totals set back in 1960.

For the California Data Exchange Center's (CDEC) network of temperature gages used in this report, 145 stations recorded a minimum temperature below freezing, and 2 stations recorded a maximum temperature of 100°F. Statewide extremes from the CDEC network of temperature gages are shown below. Also shown are the monthly average extremes from the CIMIS network. A table of regional average minimum, mean, and maximum temperatures from the CDEC and CIMIS networks is also shown.

Precipitation in November fell short of normal again. The largest amount of precipitation recorded in the CDEC precipitation gages for November 2008 was Gasquet Ranger Station which recorded 12.88 inches. This is 91% of average for this site for November. At the other end of the spectrum, the Giant Forest gage on the Kaweah River recorded no rain for the month. For the CIMIS network, the Hopland Fire Station in Mendocino County topped the precipitation charts with 3.54 inches for the month. Eighteen in the CIMIS network recorded zero for precipitation for the month. The 8-Station Index for northern California precipitation recorded 5.14 inches in November. On average 6.0 inches of precipitation is recorded for the 8-Station index in November. Statewide, the average precipitation for November was 97% of the long-term average based on the California Data Exchange Center (CDEC) gages. Precipitation percentages by region from the CDEC gages are shown in a table at the end of this document.

The Drought Monitor maps can be found on the National Drought Mitigation Center's (NDMC) website http://drought.unl.edu/dm/. These maps are largely a reflection of precipitation and soil moisture deficit estimates. As of November 25th, 2008, the California depiction has 4.7% of the state drought free, 9.3% listed in the D0 – Abnormally Dry, 44.7% listed in the D1 – Moderate Drought, and 41.3% listed in the D2 – Severe Drought category. Maps are updated weekly.

The U.S. Seasonal Drought Outlook for December through February from NOAA depicts California with persisting drought conditions across most of the south part of the state with improvement possible for the northern part of the state based largely on climatology. Some improvement is possible for the central part of the state. Updates are provided twice per month. Maps and information can be found at http://www.cpc.noaa.gov/products/expert_assessment/seasonal_drought.html.

ENSO Conditions and Long-Range Outlooks

The El Niño/Southern Oscillation (ENSO) is now in a neutral pattern. Some tropical atmospheric conditions reflect mild La Niña conditions, but the index values fall short of the threshold values for a La Niña categorization. Equatorial sea surface temperature anomalies for the tropical Pacific for the end of November varied from –0.4°C to -0.9°C. The September through November 3-month running mean of the Ocean Niño Index was -0.1. Most statistical and dynamical models forecast ENSO neutral conditions through early 2009. More information can be found at the Climate

Prediction Center's web site:
http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/
Updates are posted weekly. The latest three month outlook (December through February) from NOAA indicates equal chance for above or below normal temperatures for the entire state of California. For precipitation, equal chance for above or below normal conditions applies across the entire state as well. Outlook plots and discussions can be fount at http://www.wrcc.dri.edu/longrang/. General weather information of interest can be found at http://www.noaawatch.gov/. For anomaly information please see http://www.wrcc.dri.edu/anom/cal_anom.html.

Agricultural Data

In November, small grain fields were prepped and planted Barley and wheat planting advanced quickly. Cotton harvest was completed. Alfalfa started its dormant season and sunflower seed harvest was estimated to be completed by mid-month. Nut trees were going dormant in some areas and pruning was started. Olives were still being harvested. New blueberry bushes were planted and grape growers were pruning and removing old vineyards. Fall vegetables and farmers' market crops continued to be harvested. Cauliflower is showing potential after a slow start while produce grown in the south part of the state grew faster than expected. November's rains brought some relief for pasture and rangeland conditions. However, they remain in poor or very poor condition necessitating continuation of supplemental feeding. Irrigated pastures were in good condition. Herd sizes continued to be reduced in some areas due to the drought conditions and other herds were moved to lower elevations. Mild temperatures maintained high milk production. For further crop and livestock information see http://www.nass.usda.gov/index.asp

Other Climate Summaries

California Climate Tracker (new product of Western Region Climate Center)
Golden Gate Weather Service Climate Summary
NOAA Monthly State of the Climate Report

Statewide Extremes (CDEC)

High Temperature – 100°F (Buttercup and Squaw Lake, Colorado River Desert)
Low Temperature – 4°F (Deadman Creek, San Joaquin Basin)
High Precipitation – 12.88 inches (Gasquet Ranger Station, North Coast)
Low Precipitation – 0 inches (Giant Forest, Tulare Basin)

Statewide Extremes (CIMIS)

High Average Maximum Temperature – 82.7^0F (Seeley, Imperial County)
Low Average Minimum Temperature – 23.5^0F (Buntingville, Lassen County)
High Precipitation – 3.54 inches (Hopland FS, Mendocino County)
Low Precipitation – 0 inches (18 stations)

Statewide Precipitation Statistics

Hydrologic Region	Region Weight	Basin Reporting			Stations Reporting			% of Historic Average	
		Basins	Nov	Oct-Nov	Stations	Nov	Oct-Nov	Nov	Oct-Nov
North Coast	0.27	5	5	5	19	13	11	78.6	72
SF Bay	0.03	2	2	2	6	4	4	106.8	87
Central Coast	0.06	3	3	3	11	6	6	97.8	81
South Coast	0.06	3	3	3	15	12	11	116.9	91
Sacramento River	0.26	5	5	5	43	33	32	91.6	85
San Joaquin River	0.12	6	6	6	25	19	18	90.9	83
Tulare Lake	0.07	5	5	5	28	26	26	113.1	88
North Lahontan	0.04	3	3	3	14	8	8	83.7	74
South Lahontan	0.06	3	3	3	15	8	8	187.9	137
Colorado River	0.03	1	1	1	6	2	2	85.2	59
Statewide Weighted Average	1	36	36	36	182	131	126	97.1	84

Statewide Mean Temperature Data by Hydrologic Region (degrees F)

Hydrologic Region	No. Stations	Minimum	Average	Maximum
North Coast	31	33.0	48.1	72.2
SF Bay	16	42.9	54.7	70.4
Central Coast	34	44.3	57.5	75.9
South Coast	68	42.3	60.6	84.2
Sacramento	91	31.8	49.0	74.4
San Joaquin	71	33.2	49.8	71.4
Tulare Lake	15	24.0	43.8	69.9
North Lahontan	29	17.7	38.1	60.3
South Lahontan	19	28.1	46.2	67.7
Colorado River Desert	23	48.1	64.9	84.8
Statewide Weighted Average	397	33.2	49.7	73.0